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March 18, 1959

OPERATIONS COORDINATING BOARD

Washington, D.C.

OPERATIONS PLAN FOR OUTER SPACE



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OPERATIONS COORDINATING BOARD

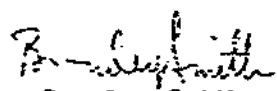
OPERATIONS PLAN FOR OUTER SPACE

A. ACTION TAKEN BY THE OCB:

REVISED and CONCURRED in the "Operations Plan For Outer Space" to serve as guidance for the departments and agencies concerned for the next six months and CONCURRED in its transmittal to the National Aeronautics and Space Council for its information.
(March 18, 1959 Board meeting; Minutes approved March 25, 1959)

B. DESTRUCTION AUTHORIZED FOR:

Previous draft of this Operations Plan, dated March 6, 1959.


Bromley Smith
Executive Officer

Attachment:

Subject Plan, 3/18/59.

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OPERATIONS PLAN FOR OUTER SPACE

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PURPOSE AND USE OF THE OPERATIONS PLAN FOR OUTER SPACE

This Operations Plan sets forth agency programs, courses of action, responsibilities and timing considerations in order to carry out national policy with respect to outer space for which the President has designated the OCB as the coordinating agency.

As such, this plan includes those programs and courses of action which, while being subject to continuing review, are currently underway or planned for the immediate future. Therefore, although it does not constitute a long-range plan, it does represent guidance for the implementation of a national program for the accomplishment of U.S. space objectives.

Each agency has agreed to carry out the programs and courses of action contained in the plan subject to modification or review should a change in circumstances so indicate. Such changes will be agreed through normal inter-agency coordination, where appropriate, and will be made in accordance with usual procedures, and not necessarily with any immediate formal amendment of this Operations Plan. A new plan will be prepared as soon as practicable following approval of a new or revised statement of national policy or a major change in circumstances.

The Department of State shall transmit appropriate sections of the text of this approved Operations Plan to the chiefs of missions whose responsibilities may be affected by U.S. space operations, e.g., USUN, U.K., USSR. The Department of Defense will send appropriate sections to the Joint Chiefs of Staff, and the Department of the Army, Navy and Air Force, for such further distribution to subordinate commands and field units as those agencies deem advisable in accordance with the guidance below. Appropriate sections also shall be distributed within the Office of the Secretary of Defense, to the Advanced Research Projects Agency, and to other joint agencies and projects, as required. These agencies should assure that their field representatives and operating officials are cognizant of the appropriate courses of action which would be helpful to them in the performance of their duties. In addition, the implementing agencies may extract and communicate appropriate, individual courses of action to their operating officials whenever such distribution is deemed necessary for effective implementation, insuring that no reference to NSC policy is made and that the excerpted courses of action are classified by the agency concerned in accordance with their substance.

Concurrence in this plan by the responsible agencies represented in the OCB does not automatically constitute authorization to operating

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officials to undertake new programs or modify existing programs, but does serve as a basis for appropriate operating instructions to be developed by each of the participating agencies. All figures contained in the courses of action should be viewed only as planned program levels. Those figures are subject to priority changes and other factors. Appropriations and expenditures not already authorized which would be needed to finance the programs set forth are subject to determination in the regular budgetary process.

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OPERATIONS COORDINATING BOARD
Washington 25, D. C.

March 16, 1959

OPERATIONS PLAN FOR OUTER SPACE

I. OPERATING GUIDANCE

A. Objectives

1. Develop and exploit U.S. outer space capabilities as needed to achieve scientific, military, and political purposes, and to establish the U.S. as a recognized leader in this field.

2. As consistent with U.S. security, achieve international co-operation in the uses of and activities related to outer space for peaceful purposes and with selected allies for military purposes.

3. As consistent with U.S. security, achieve suitable international agreements relating to the uses of outer space for peaceful purposes that will assure orderly development and regulation of national and international outer space programs.

4. Utilize the potentials of outer space to assist in "opening up" the Soviet bloc through improved programs of scientific cooperation.

B. Responsibilities

5. The National Aeronautics and Space Administration is responsible for the direction and control of U.S.-sponsored space activities except those peculiar to or primarily associated with the development of weapons systems, military operations, or the defense of the U.S.

6. The Department of Defense is responsible for the direction and control of U.S.-sponsored space activities peculiar to or primarily associated with the development of weapons systems, military operations, or the defense of the U.S. The Advanced Research Projects Agency has been charged, by the Secretary of Defense, with responsibility for arranging for the performance of and supervising the work connected with the Department's space research and development activities.

7. The Atomic Energy Commission is responsible for the direction and control of nuclear energy developments pertaining to U.S. space activities.

8. The National Science Foundation initiates and supports basic research in the physical and biological sciences pertinent to U.S. space activities.

9. The Department of State is responsible for assessing the political implications of outer space programs pertaining to the conduct of United States foreign relations and for taking appropriate action. The Department is also responsible for undertaking to establish abroad and in appropriate international organizations conditions favorable to the accomplishment of U.S. national objectives in outer space in so far as these may require the support, cooperation, or acceptance of other governments.

C. Coordination

10. Coordination of U.S. space activities at the national level is being effected through the National Aeronautics and Space Council and through the Operations Coordinating Board, in addition to the direct inter-agency coordinating that normally takes place. The Civilian-Military Liaison Committee serves as a channel for NASA and DoD to advise and consult with each other concerning matters within their jurisdiction.

11. The National Academy of Sciences, a non-governmental agency, has established a Space Science Board, the purpose of which is to encourage and to assist in coordinating the participation of the scientific community in the national space effort, and to provide advice to the Government agencies involved in the program. In addition, the National Academy will provide for U.S. participation in the Committee on Space Research (COSPAR) of the International Council of Scientific Unions.

D. Scope of Technical Program

12. Space Science

a. Space science is not a separate kind of science. Rather, space science draws upon many basic research disciplines for support of space activities; furthermore, space technology offers to scientific investigators new opportunities to obtain a more intimate and more complete knowledge and understanding of matter and the universe. Scientific experiments in earth satellites and probes are logical extensions of the sounding rocket techniques and balloon flights as well as certain aeronautic techniques which have been used in scientific research for many years.

b. Manned space flight, when it is achieved, will offer a still further extension of the available means for conducting space science investigations. Its potentialities for this purpose include both the establishment of manned earth satellite laboratories for the conduct of experiments requiring long-time human operations, and also the employment of manned vehicles in the exploration of space.

c. Through the most suitable means available at any given time, scientific space investigations should undertake to measure constituents of the upper atmosphere and space, particles and micrometeorites; primary and secondary radiations of all types; aurora and ionospheric characteristics; electric, magnetic, and gravitational fields; and astronomical data. Relativity checks and bio-physical experiments should also be carried out.

d. Over the long run the space science effort should extend these scientific measurements until sufficient data are amassed to give man a full knowledge and understanding of his spatial environment and to increase his knowledge and understanding of himself in so far as he is affected by this environment. In achieving this, the types of experiment initially conducted in orbits around the earth should ultimately be carried out in the vicinity of the moon, the planets, the sun, and in the solar system as a whole. However, it should be remembered that not all space science investigations will have the quality of newness since a sound program will require that many measurements be made repetitively so that a continuous picture of the spatial environment can be attained.

13. Satellite Applications

a. It has for some time been evident that satellites will have a number of practical applications, including applications of military importance. Specific functions which may be served by satellites include meteorology, communications, navigation, geodesy and mapping, all of which are of potential military as well as non-military significance. In addition, very early warning of ballistic missile attack,
..... Although use of satellites for these purposes may appear to represent mainly the use of a new type of vehicle for performance of familiar functions, it should be remembered that remarkable gains in performance and effectiveness may be achievable and authorized programs for establishing the technical feasibility and practicability of satellite applications should be vigorously pursued.

b. Making use of such techniques as television, optics, infrared detectors and radar, satellites can observe and measure on a world-wide basis such conditions as cloud cover, storm locations, precipitation, wind direction, heat balance, and water vapor. A program for the orderly achievement of the technological capability required for this application should be rapidly carried forward. In addition, studies should be made of the character of operational weather systems using satellites and of their integration with more conventional systems. As the technical program

proceeds, appropriate studies should also be made of the implications of greatly improved weather data and forecasting on a variety of activities ranging from agricultural, industrial, and transport activities to air strikes, troop movements, and amphibious landings.

c. The program to develop communications applications of satellites should include: (1) passive relays which reflect radio waves directionally or omnidirectionally; (2) active relays which repeat messages immediately or at a subsequent time; (3) experiments with "stationary" satellites in equatorial orbit. As the technical program proceeds, appropriate studies should be made of the effects of the improved reliability, capacity, and range of satellite communications systems on commercial and military communications. Special studies should also be made of the problems of introducing communications satellites into existing communication networks, both commercial and military.

d. The objective of the navigation satellite program is to achieve a continuous all-weather system to aid ships, submarines and aircraft in determining their position at any point on the globe. The program for developing this application should include both shipboard and aircraft-borne equipment and techniques as well as satellite equipment. Although initial use of such equipment will be for military operations, studies of non-military uses should be made.

e. The use of satellites for geodesy and mapping will afford improved measurements of the earth, more accurate determination of the relative location of land masses, and more precise definition of geographical features. Necessary technical steps to achieve this capability should be undertaken. In addition to having scientific and military importance, such improved data may have economic importance.

f.

g.

h.

i. The use of satellites for detection of high-altitude nuclear detonations should receive continuing study.

14. Advanced Space Technology

a. The present capabilities of space technology will permit only partial accomplishment of the objectives of the National Space Program. Advances in space technology must precede realization of many of the projects already in the preliminary planning stage. Some of these projects will require propulsion systems dwarfing in performance and size those presently available. Some of the contemplated missions cannot easily be accomplished with the relatively low energy fuels currently in use. Present guidance and control systems will be quite inadequate for many space flight objectives. The weight and power requirements of present satellite and space probe communications equipment should be reduced. Secondary power sources of improved life and decreased weight are needed. Instruments do not now exist to measure directly many of the physical quantities which are of interest to space science. Other satellite-borne and ground-based components and equipment are marginal in many respects. Technology must be advanced to compensate for these deficiencies.

b. In addition to new components and equipment, new techniques for application to space vehicles are required, for example, vehicles which are stabilized in orbit, and vehicles which can be maneuvered and/or recovered. Such techniques should be developed.

c. Of particular importance is development of the technology of manned space flight. Technological problems in this field range from the need for improved reliability of launching vehicles to the requirements of re-entry and safe-landing. In addition, in order to achieve the capability of prolonged manned space flights, scientific experiments both in the laboratory and in satellites must be performed to determine the conditions under which it is possible to send a man safely in a space mission with assurance of his return.

d. There is a need to conduct, as rapidly as the state of the art permits, studies which are now underway in the field of satellite defense, to include capabilities to counter unfriendly satellite operations.

E. Facilities for Technical Program

15. Research and Development Facilities

a. A major source of the strength of the national space program is the complex of research and development facilities already existing in government, universities, and industries. Although these facilities were, in most cases, designed with other types of programs in mind the National Space Program should continue to take maximum advantage of such facilities.

b. Some facilities specifically for space flight research and development are now under construction or are planned. However, it is clear that other facilities will be needed. In view of the long lead time required for approval, design, and construction of these highly specialized facilities, requirements for such facilities should be identified and programmed as early as possible.

16. Space Vehicle Launching Facilities

a. Present facilities for the launching of orbital space vehicles and advanced space probes are limited to the Atlantic and Pacific Missile Ranges, which were initially established for missile research, development, and training. Full advantage should continue to be taken of these facilities for the space program having due regard for the continuing requirements for missile programs.

b. Facilities at NASA's Pilotless Aircraft Station at Wallops Island, Virginia, are currently being improved to permit limited types of space vehicle launchings. Availability of these facilities should assist in meeting the requirements of the part of the expanding space program using relatively simple space vehicles. These facilities would also be suitable for launching unclassified scientific experiments of a cooperative international character.

c. It is anticipated that the requirements of the expanding space program will impose an increasing workload on existing launching facilities. Moreover, the present launching sites are not so located as to provide desirable orbital flexibility, without the necessity of complex maneuvers. These facts indicate the possible necessity of additional launching facilities. Any proposals to establish such facilities should be initiated as much in advance of actual operational requirements as possible. This should include consideration of seaborne and air launch facilities. Lead time required for negotiation for the use of foreign sites should be taken into account.

17. Tracking and Data Acquisition Facilities

a. Existing facilities for tracking and acquisition of data from satellites and other space vehicles include a number established primarily for this purpose, a number that are a part of the missile ranges, and still other facilities which are independent. The recent NASA-DOD agreement^{1/} in this field should provide the basis for effective coordinated use of these existing facilities as well as the additional facilities now planned.

b. Planning for additional facilities which may be required for the basic network, for special projects and for operational programs should proceed on a timely basis to assure their availability in consonance with program schedules and also to assure most effective utilization of facilities available at any given time. Lead time required for negotiation for the use of foreign sites should be taken into account.

c. Special facilities for the detection, identification, and surveillance of non-radiating satellites should be made fully operational as soon as possible; planning of improvements to achieve an optimum capability should be carried forward.

F. International Considerations

18. Development of International Cooperation in Selected Outer Space Activities

a. Cooperation in UN

(1) The U. S. should continue the initiative which resulted in General Assembly approval on December 13, 1958, of a resolution calling for the establishment of an Ad Hoc Committee to study and report to the 14th General Assembly on: activities and resources of the UN and other international bodies relating to peaceful uses of outer space, areas of international cooperation which could appropriately be undertaken under UN auspices, future organizational arrangements to facilitate international cooperation in this field within the framework of the UN, and the nature of legal problems which may arise in the carrying out of programs to explore outer space.

^{1/} (Agreement on Global Tracking Data Acquisition, Communications, and Data Centers for Space Flight, dated January 10, 1959, signed by Neil H. McElroy and T. Keith Glennan.) (See also Annex C, "Current Foreign Locations of United States Outer Space Program Ground Equipment.")

(2) In carrying forward the above initiative, the U. S. should take the lead in supporting the Ad Hoc Committee's work so that their report will be constructive.

b. Bilateral Proposals

(1) Bilateral cooperation in outer space activities is already under way in a variety of forms. For example, electronic and/or optical tracking and data acquisition equipment have already been established and are being operated, in some cases by indigenous personnel and organizations, in a number of foreign countries. The relatively simple character of these initial cooperative activities show that countries not capable of participating in advanced types of activities may play a useful role. The U. S. should be alert to such possibilities.

(2)

(3) Since the U. S. and USSR are today the only two countries with a space satellite launching capability, a possibility exists of achieving cooperation between the two countries. Accordingly, the possibility of a bilateral approach to the USSR, consideration of which was deferred until action was taken by the UN General Assembly, should be re-examined in light of the USSR's negative attitude in the UN and other subsequent developments. An important factor to be considered would be possible effects of U. S. - USSR negotiations and arrangements on other international relationships.

c. Multilateral Projects. The U. S. should consider any proposals for cooperative multilateral programs in outer space. For example, there may be programs in the NATO forum which have the interest and support of the other members of NATO.

d. Cooperation in Non-Governmental Organizations. The U. S. should continue to support appropriate outer space activities sponsored by ICSU since such activities represent one of the principal means of international scientific cooperation.

c. Foreign Scientific Personnel. The U.S. should also continue to utilize foreign scientific talent through contracts, exchanges of personnel and other appropriate arrangements when such actions can contribute to the over-all advancement of space science and technology.

19. Establishment of an International Framework for Outer Space Programs

a. International Outer Space Law. In order to be prepared to meet proposals which may be made by other countries and to deal with other practical problems as they may arise, the U.S. should develop a catalogue of the possible legal issues involved in outer space programs and should analyze specific cases with a view to initiating, where it may be necessary, the formulation of definite U.S. legal positions.

b. Recording of Satellite Orbits and Frequencies. Consideration should be given to making appropriate international arrangements for maintaining a full and current record of satellite orbits and emission frequencies.

c.

d. Agreements to Limit the Use of Outer Space to Peaceful Purposes

(1)

(2)

G. Preparation of Long-Range Plans

20. Elements of a coordinated, long-range plan should be developed by the agencies engaged in space activities. This plan should take into account the military, economic, and political implications, as well as the technical operational aspects of the national program. It is recognized that knowledge of the proposed technical program must precede planning in the other areas mentioned.

H. Security Considerations

21. In considering whether U.S. outer space information and material requires classification under Executive Order No. 10501, special account should be taken of the lead achieved by the USSR in certain outer space activities and the advantages including more rapid progress, which could accrue to the United States through liberalizing the general availability and use of such information and material.

I. Information Considerations

22. General considerations and policy guidelines concerning information aspects of U.S. space activities are contained in "Public Information Policy on U.S. Space Activities," published December 16, 1958 (Confidential), as earlier concurred in by the OCB and the National Aeronautics and Space Council and approved by the President December 11, 1958. In addition, in accordance with the request of the National Aeronautics and Space Council January 28, the OCB will prepare a plan that, when implemented, will prepare the U.S. and the world at large for future Soviet achievements in space technology.

II. CURRENT AND PROJECTED PROGRAMS AND COURSE OF ACTION

A. Technical

23. Continue to initiate and support basic research furthering any knowledge of space and the space environment.

Assigned to: NASA, Defense, NSF

Target Date: Continuing

24. Maintain a program for basic and exploratory research to consider any new concept which will advance the state of the art or potential of space technology.

Assigned to: Defense, NASA

Target Date: Continuing

25. Continue to use sounding rockets to measure and understand the nature, extent and behavior of the earth's atmosphere at all altitudes and to conduct exploratory geophysical and astrophysical investigations leading to later satellite and deep space probe experiments.

Assigned to: NASA
Support: Defense
Target Date: Continuing

26. By means of earth satellites determine the extent, nature and behavior of the earth's atmosphere; make geophysical and astrophysical measurements; and in general, define the environment of space and the effects of this environment on material, equipment and living organisms.

Assigned to: NASA
Target Date: Continuing

27. By means of space vehicles obtain scientific data on space environment out to the vicinity of the moon, including the moon's gravitational and magnetic fields, and explore the characteristics of the moon's surface.

Assigned to: NASA
Target Date: Continuing

28. Explore interplanetary space, particularly in the vicinity of Venus and Mars, with vehicles instrumented to make scientific observations.

Assigned to: NASA
Target Date: Venus probes, June 1959
Mars probe, October 1960

29. Complete the IGY scientific satellite and space probe program.

Assigned to: NASA
Target Date: April-June 1959

30. Develop a navigation satellite system to provide an instantaneous all-weather precise system for determining position at any point on the globe.

Assigned to: Defense
Target Date: 2 satellite tests to be carried out during CY 1959 (March and August)

31. Develop a communications satellite system to provide (a) inter-continental point-to-point communication through a satellite repeater, (b) ground-to-air and ship-to-shore communication (two-way) through a

satellite repeater, and (c) broadcast type communication to ground and mobile airborne and waterborne units.

Assigned to: Defense
Target Date: First delayed repeater system test, January 1960; initial tests of "stationary" communications satellite will begin April 1962.

32. Conduct basic work related to the development of satellites as components in world-wide communication systems. Initially the main effort will be directed toward experiments with passive (reflective) type satellites.

Assigned to: NASA
Target Date: Continuing

33. Develop a meteorological satellite capability to provide reliable world-wide weather information, measuring such things as cloud cover, storm location, precipitation, temperature, wind conditions and frontal movements. Develop for this system stabilized satellites for polar orbits of 500 to 1,000 miles altitude and "stationary" satellites for equatorial orbits of 22,000 mile altitude.

Assigned to: NASA and Defense^{2/}
Target Date: Continuing

34. [REDACTED]

35. [REDACTED]

36. [REDACTED]

^{2/} In FY 1960 NASA will fund and manage this project.

37. Develop at the earliest possible date a satellite-borne geodesy and mapping capability.

Assigned to: Defense, NASA

Target Date: Continuing

38. Achieve at the earliest practicable date orbital flight and successful recovery of a manned satellite and investigate the capabilities of man in this environment by means of an orderly series of steps designed to give maximum assurance of final success.

Assigned to: NASA, Defense^{3/}

Target Date: Continuing

39. Continue the study of the feasibility of a manned vehicle capable of maneuvering in and out of orbit and of being under piloted control.

Assigned to: Defense, NASA

Target Date: Continuing

40. Develop engineering techniques which can be used for all military satellite programs through completion of DISCOVERER, the basic military research satellite program. This will involve vehicle guidance for different orbital conditions, payload stabilization and recovery techniques.

Assigned to: Defense

Target Date: First phase scheduled to end
December 1959

41. To keep pace with requirements to boost larger payloads into orbit, develop a clustered 1.5 million pound thrust booster.

Assigned to: Defense

Target Date: September 1960

42. Develop a 1.5 million pound thrust single chamber booster which can later be clustered to provide 5 to 6 million pounds of thrust.

Assigned to: NASA

Target Date: 1962 for single engine -
1964 for clustered engine

^{3/} Funding of this program is shared between Defense and NASA for FY 1959; after 1959, NASA will manage and budget full cost of this project.

43.

Assigned to: Defense, NASA^{4/}
Target Date: Late 1960

44. Continue development of a nuclear rocket engine.^{5/}

Assigned to: AEC, NASA
Target Date: Continuing

45. Continue development of auxiliary power sources suitable for space applications.

Assigned to: AEC, NASA, Defense^{6/}
Target Date: Continuing

46. Plan for and install a world-wide tracking data acquisition and communication network designed to support the U. S. satellite and space probe programs.

Assigned to: Defense, NASA
Target Date: Continuing

47. Develop a comprehensive program to provide ground-based surveillance of all U. S. and foreign satellites and space vehicles and to provide intelligence on space activities, including a system to detect and catalog non-radiating satellites.

Assigned to: Defense
Target Date: Continuing

^{4/} This project, initiated by Defense, will be managed and funded by NASA in FY 1960.

^{5/} The AEC, in Project Rover, is continuing reactor development for the feasibility demonstration of a nuclear rocket engine. The NASA effort is directed toward developing the necessary non-nuclear components in support of the Rover program.

^{6/} Auxiliary power units: The AEC is continuing development of nuclear power sources to provide lightweight, reliable power units for a wide range of space vehicle requirements. NASA and DOD are initiating work on non-nuclear devices for the same purpose.

48. Provide military support as practicable, to U. S. scientific space activities on a continuing basis, particularly in the area of boosters, launching sites, tracking facilities, communications, logistics, and personnel.

Assigned to: Defense
Target Date: Continuing

49.

50. Critically examine the possible economic and social implications of space science investigation and the application of space technology.

Assigned to: NASA
Target Date: Continuing

B. International

51. Study of Implications. Study on a continuing basis the implications which U. S. and foreign exploitation of outer space may hold for international political and military relations.

Assigned to: State and Defense
Target Date: Continuing

52. Study and propose means for achieving the desired identification of interests and aspirations of other Free World nations in outer space with over-all U. S. aims.

Assigned to: Appropriate agencies
Target Date: Continuing

53. International Cooperation in Selected Outer Space Activities

a. Continue the U. S. initiative taken in the United Nations which established a UN Ad Hoc Committee to study and report on activities and resources of the UN and other international bodies relating to peaceful uses of outer space, areas of international cooperation which could appropriately be undertaken under UN auspices, future organizational arrangements

to facilitate international cooperation in this field within the framework of the UN, and the nature of legal problems which may arise in the carrying out of programs to explore outer space.

Assigned to: State
Target Date: Continuing

b. Develop bilateral proposals to other nations (including USSR) for cooperative ventures related to outer space.

Assigned to: State, Defense, NASA
Target Date: Continuing

c. Develop multilateral proposals for cooperative implementation by such organizations as NATO.

Assigned to: State, Defense, NASA
Target Date: Continuing

d. Continue to support programs of scientific cooperation in space activities sponsored by ICSU.

Assigned to: NASA, NSF
Target Date: Continuing

e. Continue to utilize foreign scientific talent through contracts, exchanges of personnel and other appropriate arrangements when such actions can contribute to the over-all advancement of space science and technology.

Assigned to: NASA, Defense, State
Target Date: Continuing

54. International Outer Space Law. Consider promoting recognition of the right of passage through outer space of any orbiting objects or vehicles not equipped to inflict injury or damage upon the citizens, territories, or property of any State or any property of its citizens.

Assigned to: State, Defense, NASA
Target Date: Continuing

55. Develop a catalog of the possible legal issues with regard to outer space programs and analyze specific cases with a view to initiating, where it may be necessary, the formulation of definite U. S. legal positions.

Assigned to: State, Defense, NASA
Target Date: Continuing

56. Recording Satellite Orbits and Frequencies. Propose international agreement concerning appropriate means for maintaining a full and current public record of satellite orbits and emission frequencies.

Assigned to: State, Defense, NASA
Target Date: Continuing

57. [REDACTED]

58. Agreements to Limit the Use of Outer Space to Peaceful Purposes.

a. Continue, in the UN and its Disarmament Commission, U. S. initiatives calling for technical studies of the design of an inspection system which might make it possible to assure that the sending of objects through outer space will be exclusively for peaceful and scientific purposes. Consider similar bilateral efforts looking toward the design of such a system.

Assigned to: State
Support: Defense
Target Date: Continuing

b. Further consider U. S. policy concerning the scope of control and inspection required to assure that outer space could be used only for peaceful purposes, as well as the relationship of any such control arrangement to other aspects of an arms agreement.

Assigned to: State, Defense
Target Date: Continuing

C. Information and Cultural

59. In accordance with "Public Information Policy on U. S. Space Activities", dated December 16, 1958, concurred in by the OCB and the National Aeronautics and Space Council and approved by the President, provide appropriate information and public relations support for the political, military and scientific space programs set forth elsewhere in this Operations Plan.

Assigned to: Defense, NASA, USIA
Target Date: Continuing

NOTE:

Enclosures:

1. Financial Annex
2. Annex A - Summary of U. S. Space Development
Program (as of March 16, 1959).
3. Annex B - Soviet Space Program.
4. Annex C - Current Foreign Locations of U. S.
Outer Space Program Ground Equipment.

FINANCIAL ANNEX

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ANNEX A

SUMMARY OF U.S. SPACE DEVELOPMENT PROGRAM
(As of March 16, 1959)

The purpose of this annex is to provide the earliest possible date at which the United States expects to achieve certain specific goals in its space program. The term "earliest possible date" refers to the Calendar Year in which initial launchings are programmed or estimated to be feasible. As such, the various dates may be subject to change, earlier or later, because of presently unforeseen advances in the state of the space art, technical difficulties, funding levels, competition between projects and with other programs, Soviet achievements, and other possible contributing factors. Further, it is assumed that the aeronautical and missile efforts of the United States will be a projection of the current development and production rates.

To the extent that comparisons are made with corresponding Soviet projects as presented in Annex B, it is important to note that the U. S. program is subject to known controls of national policy, funding levels, etc., while no such assumptions have been made for the USSR space program. Also, the estimated earliest possible dates for the Soviet program were made in the Summer of 1958, while those of the U. S. are current. In this regard, it should be noted that the scope and schedule of the U. S. space program has become much better defined than it was nine months ago. There is the further proviso that the Soviet dates represent the earliest possible time period in which each specific event could be successfully accomplished. However, competition between the Soviet space and missile programs, as well as within the space program itself, could make it unlikely that all of the Soviet objectives will be achieved within the specified time periods.



PLANNED AND POSSIBLE U. S.
SPACE PROGRAM OBJECTIVES

EARLIEST POSSIBLE
CAPABILITY DATE
(Calendar Years)

Unmanned Satellites

IGY Vanguard and Explorer Satellites	1958
Stabilized Satellites (With Recoverable Features)	1959
Navigation Satellites	1959
Meteorological Satellites	1959
Very Early Warning Satellites	1959
.....
Communications Satellites	1960*
Mapping and Geodesy Satellites	1960

Manned Earth Satellites (Recoverable)

Capsule Type	1960
Maneuverable Type	1962-3
25,000-lb. Satellite	After 1965

Lunar Probes

Exploratory Lunar Probes	1959
Lunar Satellites	1961
"Soft" Lunar Landings	1962

Planetary Probes and Satellites

Venus-Direction Space Probe	June 1959
Mars Probe	Oct. 1960

Manned Space Flight

Circumlunar Flights	After 1965
Lunar Landing	After 1965

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*Project SCORE, the so-called "talking Atlas satellite," launched December 18, 1958, constituted a simple repeater communications satellite. The communications satellites to be launched, beginning in January 1960, will be delayed repeater types and will orbit at 500 to 600 miles, and higher.

Annex B, pages 22-29 totally exempt from declassification per NSC
letter of 8/24/81, 1-301 (c,d,e)